SEQUENCE LISTING

```
<110> STANNERS, Clifford P.
      ILANTZIS, Christian
      ORDONEZ-GARCIA, Cosme
      TAHERI, Maryam
      SCREATON, Robert A.
<120> CEA/NCA-BASED DIFFERENTIATION CANCER THERAPY
<130> 186.009US1
<140> 09/637,530
<141> 2000-08-11
<150> CA99/00119
<151> 1999-02-11
<150> CA 2,224,129
<151> 1998-02-12
<160> 30
<170> PatentIn Ver. 2.1
<210> 1
<211> 6
<212> PRT
<213> Homo sapiens
<400> 1
Gly Tyr Ser Trp Tyr Lys
<210> 2
<211> 5
<212> PRT
<213> Homo sapiens
<400> 2
Asn Arg Gln Ile Ile
<210> 3
<211> 5
<212> PRT
<213> Homo sapiens
<400> 3
Asn Arg Arg Ile Val
  1
<210> 4
<211> 5
<212> PRT
<213> Homo sapiens
```

<400> 4

Asp Arg Gln Ile Ile

```
<210> 5
<211> 107
<212> PRT
<213> Homo sapiens
<400> 5
Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu
Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser
Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile Gly Tyr
Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg
Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln
Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val
                                      90
Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr
            100
<210> 6
<211> 5
<212> PRT
<213> Homo sapiens
<400> 6
Asn Arg Gln Lys Ile
<210> 7
<211> 5
<212> PRT
<213> Homo sapiens
<400> 7
Asn Arg Gln Ile Val
  1
<210> 8
<211> 6
<212> PRT
<213> Homo sapiens
```

<400> 8

Gly Ala Ser Trp Tyr Lys

```
<210> 9
、 <211> 6
  <212> PRT
  <213> Homo sapiens
  <400> 9
  Gly Tyr Ser Trp Ala Lys
  <210> 10
  <211> 6
  <212> PRT
  <213> Homo sapiens
  <400> 10
  Gly Tyr Ser Trp Phe Lys
  <210> 11
  <211> 6
  <212> PRT
  <213> Homo sapiens
  <400> 11
  Gly Tyr Ser Trp Tyr Ala
  <210> 12
  <211> 102
  <212> PRT
  <213> Homo sapiens
  <400> 12
  Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu
  Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser
  Trp Tyr Lys Gly Glu Arg Val Asp Gly Gly Tyr Val Ile Gly Thr Gln
  Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg Glu Ile Ile Tyr Pro
 Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln Asn Asp Thr Gly Phe
  Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val Asn Glu Glu Ala Thr
```

Gly Gln Phe Arg Val Tyr 100 () ż

```
<210> 13
<211> 107
<212> PRT
<213> Homo sapiens
```

<400> 13

Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu
1 5 10 15

Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser 20 25 30

Trp Tyr Lys Gly Glu Arg Val Asp Gly Asp Arg Gln Ile Ile Gly Tyr 35 40' 45

Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg
50 55 60

Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln 65 70 75 80

Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val 85 90 95

Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr 100 105

<210> 14 <211> 107 <212> PRT <213> Homo sapiens

<400> 14

Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu 1 5 10 15

Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser 20 25 30

Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Lys Ile Gly Tyr 35 40 45

Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg
50 55 60

Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln 65 70 75 80

Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val 85 90 95

Ca

```
<210> 15
 <211> 107
 <212> PRT
 <213> Homo sapiens
 <400> 15
Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu
Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser
                                  25
Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Val Gly Tyr
Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg
Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln
Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val
Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr
<210> 16
<211> 107
<212> PRT
<213> Homo sapiens
<400> 16
Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu
Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser
Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Arg Ile Val Gly Tyr
Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg
Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln
Asn Asp Thr Cys Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val
```

Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr

100

.

```
<210> 17
<211> 107
<212> PRT
<213> Homo sapiens
```

Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser 20 25 30

Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile Gly Tyr 35 40 45

Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg
50 55 60

Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Ala 65 70 75 80

Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val 85 90 95

Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr 100 105

<210> 18 <211> 107 <212> PRT <213> Homo sapiens

Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser

Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile Gly Tyr 35 40 45

Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg
50 55 60

Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Arg 65 70 75 80

Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val 85 90 95

1 Val Leu

<210> 19 <211> 107 <212> PRT

<213> Homo sapiens

Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser 20 25 30

Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile Gly Tyr 35 40 45

Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg
50 55 60

Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln 65 70 75 80

Ala Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val 85 90 95

Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr 100 105

<210> 20

<211> 101

<212> PRT

<213> Homo sapiens

<400> 20

Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu
1 5 10 15

Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Glu Arg
20 25 30

Val Asp Gly Asn Arg Gln Ile Ile Gly Tyr Val Ile Gly Thr Gln Gln 35 40 45

Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg Glu Ile Ile Tyr Pro Asn 50 55 60

Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln Asn Asp Thr Gly Phe Tyr 65 70 75 80

Thr Leu His Val Ile Lys Ser Asp Leu Val Asn Glu Glu Ala Thr Gly 85 90 95

Gln Phe Arg Val Tyr 100 <210> 21 <211> 107

<212> PRT

<213> Homo sapiens

<400> 21

Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu 1 5 10 15

Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Ala Ser 20 25 30

Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile Cys Tyr 35 40 45

Val Ile Gly Thr Gln Gln Ala Thr Pro Cys Pro Ala Tyr Ser Gly Arg
50 55 60

Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln 65 70 75 80

Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val 85 90 95

Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr 100 105

<210> 22

<211> 107

<212> PRT

<213> Homo sapiens

<400> 22

Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu 1 5 10 15

Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser 20 25 30

Trp Ala Lys Cys Glu Arg Val Asp Gly Asn Arg Gln Ile Ile Gly Tyr 35 40 45

Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg 50 55 60

Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln 65 70 75 80

Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val 85 90 95

()-

```
<210> 23
<211> 107
<212> PRT
```

<213> Homo sapiens

<400> 23
Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu
1 5 10 15

Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser 20 25 30

Trp Phe Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile Gly Tyr 35 40 45

Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg
50 55 60

Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln 65 70 75 80

Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val 85 90 95

Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr 100 105

<210> 24 <211> 107 <212> PRT

<213> Homo sapiens

<400> 24

Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu
1 5 10 15

Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser 20 25 30

Trp Tyr Ala Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile Gly Tyr
35 40 45

Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg
50 55 60

Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln 65 70 75 80

Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val 85 90 95

```
<210> 25
 <211> 3
 <212> PRT
 <213> Homo sapiens
 <400> 25
 Gln Asn Asp
   1
 <210> 26
 <211> 3
 <212> PRT
 <213> Homo sapiens
 <400> 26
 Ala Asn Asp
  1
<210> 27
<211> 3
<212> PRT
 <213> Homo sapiens
<400> 27
Arg Asn Asp
  1
<210> 28
<211> 3
<212> PRT
<213> Homo sapiens
<400> 28
Gln Ala Asp
  1
<210> 29
<211> 3
<212> PRT
<213> Homo sapiens
<400> 29
Gln Asn Asn
  1
<210> 30
<211> 107
<212> PRT
<213> Homo sapiens
<400> 30
Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu
                  5
Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly Tyr Ser
```

20

Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile Gly Tyr Val Ile Gly Tyr Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile Ile Gln 80

Asn Asn Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp Leu Val 85

Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr 105